IN THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 4. This sheet, which includes Fig. 4, replaces the original sheet including Fig. 4.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the present amendments and in light of the following discussion is respectfully requested.

Claims 1-18 are currently pending, and Claims 1 and 9 are amended.

Support for changes to Claims 1 and 9 is found at least in Applicants' Figures 1 and 4 and the corresponding written description and Applicants' Paragraphs [0036] to [0038], [0044], and [0046]. Thus, the changes to the claims add no new matter.

Figure 4 is amended to address minor informalities. Thus, the changes to the drawings add no new matter.

The Official Action objected to Claims 1 and 9; rejected Claims 1-2, 9-10, and 17-18 under 35 U.S.C. § 103(a) as unpatentable to U.S. Patent No. 6,339,488 to Beshai, et al. (hereinafter "Beshai") and U.S. Patent No. 6,665,495 to Miles et al. (hereinafter "Miles"); rejected Claims 3-5 and 11-13 under 35 U.S.C. § 103(a) as unpatentable over Beshai, Miles, and U.S. Patent No. 6,970,451 to Greenberg, et al. (hereinafter "Greenberg"); and rejected Claims 6-8 and 14-16 under 35 U.S.C. § 103(a) as unpatentable over Beshai, Miles, and U.S. Patent No. 6,842,463 to Drwiega, et al. (hereinafter "Drwiega").

Claims 1 and 9 are amended as suggested by the outstanding Official Action.[1] Accordingly, Applicants respectfully request that the objection to the claims be withdrawn.

Claim 1 is directed to a packet communication system. The system includes, *inter alia*, at least two full-mesh wavelength-division-multiplexing transmission units, each of which includes n number of interfaces. Claim 1 is amended to recite, *inter alia*:

> an internetwork connection unit that includes at least a packet recognizing unit and a packet transmitting/receiving unit, and connects the full-mesh wavelength-division-multiplexing transmission units in a multistage tree-shaped structure through the plurality of edge-packet transfer units, the

[1] See Official Action of January 21, 2010 at page 2.

internetwork connection unit being connected between two of the plurality of edge-packet transfer units, wherein

one of the two of the plurality of edge-packet transfer units is connected at an upper-stage of the internetwork connection unit, and the other one of the plurality of edge-packet transfer units is connected at a lower-stage of the internetwork connection unit.

An advantage of using a full-mesh WDM transmission unit includes at least the ability to establish a stable communication with shorter delays and jitters, for example in a VoIP telephone communication, because the same wavelength path of the full-mesh WDM transmission unit can be maintained for a telephone call.[2]

Now turning to the applied references, Beshai describes a fully meshed transport network. Figure 1 of Beshai illustrates an optical core electronic edge network 10 having an optical core transport network 12, optical nodes 14, and electronic edge switches 18.[3] Beshai describes that the electronic edge switches 18 each are connected to optical nodes 14 and interface between the network 10 and any external networks or terminals.[4] Figure 27 of Beshai illustrates another network having a ring structure. The network in Figure 27 of Beshai includes global optical nodes 750 connected to optical nodes 754 that are arranged in a ring structure.[5] Figure 27 of Beshai also illustrates a switch 756 connected to the global optical node 750.[6]

Claim 1 is distinguishable over Beshai as the applied reference fails to disclose or suggest "an internetwork connection unit that includes at least a packet recognizing unit and a packet transmitting/receiving unit, and connects the full-mesh wavelength-division-multiplexing transmission units in a multistage tree-shaped structure through the plurality of edge-packet transfer units." The outstanding Official Action asserts that the electronic edge

[2] Specification, p. 19. ll. 11-18, p. 8, ll. 12-32.
[3] See Beshai at column 5, lines 46-56 and Figure 1.
[4] See Beshai at column 5, lines 54-57.
[5] See Beshai at column 14, line 62-to column 15, line 7.
[6] See Beshai at column 14, line 67 to column 15, line 2.

switch of Beshai, e.g., edge switch 18, 40, corresponds to the claimed "edge-packet transfer" unit, and the global optical node (Wavelength demultiplexer-multiplexer 610 in Fig. 26) of Beshai corresponds to the "internetwork connection unit."[7] In Fig. 26 of Beshai, the electronic edge switch 612 (edge-packet transfer unit) is connected to the wavelength demultiplexer-multiplexer 610 (internetwork connection unit).

However, if the global optical node is construed as the internetwork connection unit, the global optical node (internetwork connection unit) does not include at least a packet recognizing unit, and the global optical node (internetwork connection unit) does not connect the multiplexing transmission units in a multistage tree-shaped structure. Therefore, Beshai fails to disclose or suggest "an internetwork connection unit that includes at least a packet recognizing unit and a packet transmitting/receiving unit, and connects the full-mesh wavelength-division-multiplexing transmission units in a multistage tree-shaped structure through the plurality of edge-packet transfer units," as recited in amended Claim 1.

Additionally, since the outstanding Official Action identifies the edge switch 18, 40 of Beshai as the claimed "edge-packet transfer" unit, and the global optical node of Beshai as the "internetwork connection unit," Beshai fails to disclose or suggest an internetwork connection unit and an edge-packet transfer unit where "one of the two of the plurality of edge-packet transfer units is connected at an upper-stage of the internetwork connection unit, and the other one of the plurality of edge-packet transfer units is connected at a lower-stage of the internetwork connection unit," as recited in amended Claim 1.

Claim 1 is further distinguishable over Beshai as the applied reference fails to disclose or suggest "a plurality of edge-packet transfer units, each of which ... is connected to the interface of one of the full-mesh wavelength-division-multiplexing transmission units by the

[7] See Official Action of January 21, 2010 at page 4.

internal-packet transmitting/receiving unit," and an "internetwork connection unit being connected between two of the plurality of edge-packet transfer units." As discussed above, the outstanding Official Action identifies the edge switch 18 of Beshai as Applicants' "edge-packet transfer unit" and the edge switch 756 connected to a global optical node 750 of Beshai as Applicants' claimed "internetwork connection unit."[8] While Figure 1 of Beshai illustrates that the edge switch 18 is interfaced to an optical node 14, Beshai fails to disclose or suggest that the edge switch 18 is connected to the global optical node 750 of Beshai. That is, as discussed above, Beshai merely describes that the edge switch 18 may connect to external networks or terminals without disclosing or suggesting that the edge switch 18 connects to the global optical node 750. Further, while Beshai describes that an "edge switch receives traffic from local sources as well as from the optical core,"[9] Applicants' submit that the optical core of Beshai refers to the network 12 in Figure 1 of Beshai and not the global optical node 750 of Beshai.[10] Accordingly, the edge switch 18 of Beshai is not equivalent to Applicants' claimed "edge-packet transfer unit" since Beshai fails to disclose or suggest that the edge switch 18 connects to the global optical node 750, which the outstanding Official Action identifies as Applicants' claimed "internetwork connection unit."

Additionally, while Figure 27 of Beshai illustrates a switch 756 connected to the global optical node 750, Beshai fails to disclose or suggest that the switch 756 is connected to any of the optical nodes 754. That is, the switch 756 is not "an edge-packet transfer unit" that "is connected to the interface of the full-mesh wavelength-division-multiplexing transmission unit." Accordingly, Beshai fails to disclose or suggest an internetwork connection unit that "is connected to the edge-packet transfer unit" where the edge-packet transfer unit "is

[8] See Official Action of January 21, 2010 at page 4.
[9] See Beshai at column 10, lines 63-64.
[10] See Beshai at column 5, lines 40-53 and Fig. 1.

connected to the interface of the full-mesh wavelength-division-multiplexing transmission unit," as recited in Claim 1.

The outstanding Official Action acknowledges that Beshai fails to disclose or suggest features analogous to "both the packet recognizing units of the plurality of edge-packet transfer units and the packet recognizing unit of the internetwork connection unit identify a next-destination edge-packet transfer that is a next destination of a packet from a header of the packet," as recited in Claim 1. To cure the deficiencies of Beshai, the outstanding Official Action relies on Miles. [11]

Now turning to the applied reference, Miles is directed to a method for providing non-blocking routing of optical data through a telecommunications router, where an optical router 50 has ingress edge units 60 and egress edge units 160.[12] Miles describes that the ingress edge unit 60 may have an ingress interface port 92 that includes a packet classification and destination queue controller 112 that is configured to examiner header information to route incoming packets to appropriate destination queues.[13]

However Miles fails to disclose or suggest "a plurality of edge-packet transfer units, each of which ... is connected to the interface of one of the full-mesh wavelength-division-multiplexing transmission units by the internal-packet transmitting/receiving unit," and an "internetwork connection unit being connected between two of the plurality of edge-packet transfer units," as recited in amended Claim 1. That is, Miles fails to disclose or suggest that the ingress unit 60 or egress unit 160 connect to a "full-mesh wavelength-division-multiplexing transmission unit," and an "internetwork connection unit."

Additionally, Miles fails to disclose or suggest that "both the packet recognizing units of the plurality of edge-packet transfer units and the packet recognizing unit of the

[11] See Official Action of January 21, 2010 at page 6.
[12] See Miles at col. 6, lines 54-67 and Fig. 4.
[13] See Miles at col. 20, lines 3-8.

internetwork connection unit identify a next-destination edge-packet transfer that is a next destination of a packet from a header of the packet," as recited in Claim 1. Particularly, in Miles, only the packet classification and destination queue controller 112 determines a destination of a packet. Accordingly, Miles fails to disclose or suggest an "internetwork connection unit" and an "edge-packet" transfer unit that both "identify a next-destination edge-packet transfer unit that is a next destination of a packet form a header packet."

Accordingly, Applicants' submit that Beshai and Miles fail to disclose or suggest all the features of Claim 1. Thus, Applicants respectfully request that the rejection of Claim 1, and claims depending therefrom, under 35 U.S.C. § 103(a) be withdrawn.

As independent Claim 9 recites features analogous to independent Claim 1, Applicants submit that Beshai and Miles fail to disclose or suggest all the features of independent Claim 9. Applicants respectfully request that the rejection of Claim 9, and claims depending therefrom, under 35 U.S.C. § 103(a) be withdrawn.

The outstanding Official Action rejected Claims 3-5 and 11-13 under 35 U.S.C. § 103(a) as unpatentable over Beshai, Miles and Greenberg. As discussed above, Beshai and Miles fail to disclose or suggest all the features of independent Claims 1 and 9, from which Claims 3-5 and 11-13 depend from. Applicants have considered Greenberg and submit that the applied reference fails to cure the deficiencies of Beshai and Miles.

Accordingly, Applicants submit that there is no *prima facie* case set forth for Claims 3-5 and 11-13. Applicants respectfully request that the rejection of Claims 3-5 and 11-13 under 35 U.S.C. § 103(a) be withdrawn.

The outstanding Official Action rejected Claims 6-8 and 14-16 under 35 U.S.C. § 103(a) as unpatentable over Beshai, Miles, and Drwiega.

As discussed above, Beshai and Miles fail to disclose or suggest all the features of independent Claims 1 and 9, from which Claims 6-8 and 14-16 depend from. Applicants

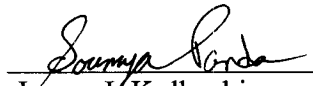
have considered Drwiega and submit that the applied reference fails to cure the deficiencies of Beshai.

Accordingly, Applicants submit that no *prima facie* case of obviousness is set forth for Claims 6-8 and 14-16. Applicants respectfully request that the rejection of Claims 6-8 and 14-16 under 35 U.S.C. § 103(a) be withdrawn.

Consequently, in view of the present response, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. A Notice of Allowance for Claims 1-18 is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.



James J. Kulbaski
Attorney of Record
Registration No. 34,648

Soumya Panda
Registration No. 60,447

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/09)